(Revised) Appendix A Status of all claims

1~10. (Canceled)

11. (Currently Amended) A polymeric composition comprising repeat units derived from (1) phosphorus trichloride, (2) an aromatic polyhydric alcohol wherein the location of the OH groups thereof are placed such that, when the polyhydric alcohol is contacted with PCl3, monodentate phosphites are not predominately produced, and (3) an aromatic diol that has a formula selected from the group consisting of

and combinations of two or more thereof;

each R^4 is independently selected from the group consisting of hydrogen, C_1 to C_{12} alkyl or cycloalkyl group, acetal, ketal, $-OR^3$, $-CO_2R^3$, C_6 to C_{20} aryl group, $-SiR^3$, $-NO_2$, $-SO_3R^3$, $-S(O)R^3$, $-S(O)_2R^3$, -CHO, $-C(O)R^3$, -F, -Cl, -CN, $-CF_3$, $-C(O)N(R^3)(R^3)$, $-A^1Z$, and combinations of two or more thereof;

 A^1 is a C_1 to C_{12} alkylene group;

Z is selected from the group consisting of $-CO_2R^3$, -CHO, $-C(O)R^3$, $-C(O)SR^3$, $-SR^3$, $-C(O)NR^1R^1$, $-OC(O)R^3$, $-OC(O)OR^3$, $-N=CR^1R^1$, $-C(R^1)=N-O-R^1$, $-P(O)(OR^3)(OR^3)$, $-S(O)_2R^3$, $-S(O)R^3$,

-C(O)OC(O)R³, -NR³CO₂R³, -NR³C(O)NR¹R¹, F, Cl, -NO₂, -SO₃R³, -CN, and combinations of two or more thereof;

each \mathbb{R}^3 is independently selected from the group consisting of \mathbb{C}_1 to \mathbb{C}_{12} alkyl or cycloalkyl group, \mathbb{C}_6 to \mathbb{C}_{20} aryl group, and combinations of two or more thereof;

each R^5 is independently selected from the group consisting of H, F, Cl, C₁ to C₁₂ alkyl, C₁ to C₁₂ cycloalkyl, C₆ to C₂₀ aryl, -OR³, -CO₂R³, -C(O)R³, -CHO, -CN, -CF₃, and combinations of two or more thereof;

each R^6 independently is selected from the group consisting of H, C_1 to C_{12} alkyl, C_1 to C_{12} cycloalkyl, C_6 to C_{20} aryl, and combinations of two or more thereof; and

each R^7 independently is selected from the group consisting of H, C_1 to C_{12} alkyl, C_1 to C_{12} cycloalkyl, C_6 to C_{20} aryl, and combinations of two or more thereof.

- 12. (Original) A composition according to Claim 11 wherein said polyhydric alcohol is selected from the group consisting of dialcohols, trialcohols, tetraalcohols, and combinations of two or more thereof.
- wherein said polyhydric alcohol is selected from the group consisting of $(R^4)(HO)_{m}$ -Ar²-A¹-Ar²-(OH) $_{m}(R^4)$, $(R^4)(HO)_{m}$ -Ar²-(O-A¹) $_{p}$ -O-Ar²-(OH) $_{m}(R^4)$, $(R^4)(OH)_{m}$ -Ar²-Ar²-(OH) $_{m}(R^4)$, $(R^4)(OH)_{m}$ -Ar²-Ar²-(OH) $_{m}(R^4)$, $(R^4)(OH)_{m}$ -Ar²-Ar²-(OH) $_{m}(R^4)$, $(R^4)(OH)_{m}$ -Ar²-Al-C(O)-O-Al-O-C(O)-Al-Ar²-(OH) $_{m}(R^4)$, $(R^4)(OH)_{m}$ -Ar¹-(OH) $_{m}(R^4)$, and combinations of two or more thereof; each Ar¹ is independently selected from the group consisting of phenylene group, biphenylene group, naphthylene group, binaphthylene group, and combinations of two or more thereof;

each ${\rm Ar}^2$ is independently selected from the group consisting of phenylene group, naphthylene group, and combinations thereof;

each A^1 is independently a C_1 to C_{12} althwhere group; each A^2 is independently selected from the group consisting of $-C(R^1)(R^1)$ -, -O-, $-N(R^1)$ -, -S-, $-S(O)_2$ -, -S(O)-, and combinations of two or more thereof;

each R1 is independently selected from the group consisting of hydrogen, C1 to C12 alkyl or cycloalkyl group, C6 to C20 aryl group, and combinations of two or more thereof;

each \mathbb{R}^4 is independently selected from the group consisting of hydrogen, C_1 to C_{12} alkyl or cycloalkyl group, acetal, ketal, $-OR^3$, $-CO_2R^3$, C_6 to C_{20} aryl group, $-SiR^3$, $-NO_2$, $-SO_3R^3$, $-S(O)R^3$, $-S(O)_2R^3$, -CHO, - $C(O)R^3$, F, Cl, -CN, perhaloalkyl, - $C(O)N(R^3)(R^3)$, - A^1Z , and combinations of two or more thereof;

Z is selected from the group consisting of - CO_2R^3 , -CHO, -C(O) R^3 , $-C(O)SR^3$, $-SR^3$, $-C(O)NR^1R^1$, $-OC(O)R^3$, $-OC(O)OR^3$, $-N=C(R^1)R^1$, $-C(R^1)=NR^1$, $-C(R^1)=N-O-R^1$, $-P(O)(OR^3)(OR^3)$, $-S(O)_2R^3$, $-S(O)R^3$,

 $-C(O)OC(O)R^3$, $-NR^3CO_2R^3$, $-NR^3C(O)N(R^1)R^1$, F, C_1 , $-NO_2$, $-NC_2$,

SO3R3, -CN, and combinations of two or more thereof;

each \mathbb{R}^3 is independently selected from the group consisting of \mathbb{C}_1 to C_{12} alkyl or cycloalkyl group, C_1 to C_{20} aryl group, and combinations thereof;

each m is independently a number in the range of from 1 to 2; and each p is independently a number in the range of from 1 to 10.

14. (Previously Presented) A composition according to Claim 13 wherein

said polyhydric alcohol is selected from the group consisting of $(OH)_{m} (R^{4})Ar^{1}-Ar^{1}(R^{4})(OH)_{m} \text{ and } (OH)_{m} (R^{4})Ar^{1}-A^{1}-Ar^{1}(R^{4})(OH)_{m};$

 Ar^1 and A^1 are the same as recited in Claim 13; and each \mathbb{R}^4 is independently selected from the group consisting of C_1 to C₁₂ alkyl or cycloalkyl group, acetal, ketal, -OR³, -CO₂R³, C₆ to C₂₀ aryl group, -SiR3, -SO₃R3, -S(O)R3, -S(O)₂R3, perhaloalkyl, -C(O)N(R3)(R3), -Alco2R3, -AloR3 and combinations of two or more thereof.

15. (Canceled).

16. (Currently Amended) A composition according to Claim 11 said polyhydric alcohol is selected from the group consisting of 6,6'dihydroxy-4,4,4',7,7,7'-hexamethyl bis-2,2'-spirochroman, 2,2'diallylbisphenol_A, bisphenol A, 4,4'-(1-methylethylidene)bis(2-(1methylpropyl)phenol), 4,4'-thiophenol, 4,4'-dihydroxydiphenylsulfone, 4,4'-

sulfonylbis(2-methylphenol), bis(4-hydroxy-3,-methylphenyl)sulfide, 2,2'-dbis(4-hydroxy-3-methylphenyl)propane, 4,4'-ethylidenebis(2,5-dimethylphenol), 4,4'-propylidenebis(2,5-dimethylphenol), 4,4'-benzylidenebis(2,5-dimethylphenol), 4,4'-ethylidenebis(2-isopropyl-5-methylphenol),

and combinations of two or more thereof.

17. (Canceled).

- 18. (Previously Presented) A composition according to Claim 11 further comprising at least one Group VIII metal selected from the group consisting of nickel, palladium, cobalt, and combinations of two or more thereof.
- 19. (Original) A composition according to Claim 18 further comprising at least one Lewis acid which is an inorganic compound or organometallic compound in which the element of said inorganic compound or organometallic compound is selected from the group consisting of scandium, titanium, vanadium, chromium, manganese, iron, cobalt, copper, zinc, boron, aluminum, yttrium, zirconium, niobium, molybdenum, cadmium, rhenium, tin, and combinations of two or more thereof.

- wherein said Lewis acid is selected from the group consisting of ZnBr₂, ZnI₂, ZnCl₂, ZnSO₄, CuCl₂, CuCl, Cu(O₃SCF₃)₂, CoCl₂, CoI₂, FeI₂, FeCl₃, FeCl₂(tetrahydrofuran)₂, FeCl₂, TiCl₄(tetrahydrofuran)₂, TiCl₄, TiCl₃, ClTi(OiPr)₃, MnCl₂, ScCl₃, AlCl₃, (C₈H₁₇)AlCl₂, (C₈H₁₇)₂AlCl, (iso-C₄H₉)₂AlCl, (phenyl)₂AlCl, phenylAlCl₂, ReCl₅, ZrCl₄, NbCl₅, VCl₃, CrCl₂, MoCl₅, YCl₃, CdCl₂, LaCl₃, Er(O₃SCF₃)₃, Yb(O₂CCF₃)₃, SmCl₃, TaCl₅, CdCl₂, B(C₆H₅)₃, and (C₆H₅)₃SnX, and combinations of two or more thereof; and X is selected from the group consisting of CF₃SO₃, CH₃C₆H₅SO₃, (C₆H₅)₃BCN, and combinations of two or more thereof.
- 21. (Original) A composition according to Claim 20 wherein said Lewis acid is selected from the group consisting of zinc chloride, cadmium chloride, iron chloride, triphenylboron, (C₆H₅)₃SnX, and combinations of two or more thereof; and X is selected from the group consisting of CF₃SO₃, CH₃C₆H₃SO₃, (C₆H₃)₃BCN, and combinations of two or more thereof.

22~33. (Canceled)

34. (Original) A process comprising (a) contacting PCl3 with a polyhydric alcohol to produce a phosphorus-containing polymer and (b) contacting said phosphorus-containing polymer with an aromatic diol.

35~62. (Canceled)